REMARKS

In the Office Action dated November 3, 2004, claims were objected to; the drawings were objected to; claims 1, 8, 30, 31, and 33 were rejected under 35 U.S.C. § 112, ¶ 2; claims 14 and 32 were rejected under § 112, ¶ 1; claims 1-7, 9-15, and 17-33 were rejected under § 102 over U.S. Patent No. 6,137,875 (Mo); and claims 8 and 16 were rejected under § 103 over Mo in view of U.S. Patent No. 5,313,641 (Simcoe).

Claims 1, 8, 9, 14, 30, and 32 have been amended, and claims 31 and 33 have been cancelled. The language of cancelled claims 31 and 33 has been incorporated into claims 1 and 30, respectively. Consistent with the objection under 37 C.F.R. 1.75(c) raised by the Office Action, this amendment of claims 1 and 30 do not change the scope of the claims. Claim 30 has also been amended to replace "controller" with "trunk selection logic" to address an antecedent issue. This amendment is to the form of the claim. The amendments of claims 8, 9, 14, and 32 are also to the form of such claims. Therefore, it is believed that a new search would not be required in light of the amendments made herein. It is respectfully requested that the claims be entered for purposes of appeal if the Examiner does not withdraw the final rejections.

CLAIM OBJECTIONS

Claims 8 and 9 have been amended to address the claim objections.

Claims 31 and 33 were rejected under 37 C.F.R. 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Claim 31, which depends from claim 1, recites that "the controller is adapted to select another trunk for call origination *in response to determining* that the at least one available trunk is likely to be used by the second switch." The last clause of claim 1 reads: "if the at least one available trunk is likely to be used by the second switch, the controller adapted to select another trunk for call origination." The Office Action has equated the meaning of the term "if" as recited in claim 1 with the phrase "in response to determining that" as recited in claim 31. To address this objection, claim 31 has been cancelled, and the phrase "in response to determining that" has been added to claim 1 in

place of the term "if." The scope of claim 1 has *not* been changed by this amendment in view of the recognition in the Office Action that claim 31 does not further limit the subject matter of claim 1.

Claim 30 has been similarly amended to replace "if" with "in response to determining that" as recited in dependent claim 33 (now cancelled). The scope of claim 30 has also not been changed by this amendment.

With the cancellation of claims 31 and 33, the objection of these claims has been overcome.

Withdrawal of all claim objections is respectfully requested.

OBJECTIONS TO DRAWINGS

The drawings have been amended to add legends to Figure 1. Withdrawal of the drawing objection is respectfully requested.

REJECTION UNDER 35 U.S.C. § 112, ¶ 1

Each of claims 14 and 32 has been amended to replace "a trunk selected" with "a trunk *to be* selected." This is consistent with the statement in the Office Action made on page 4. Withdrawal of the rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. § 112, ¶ 2

Claims 1, 8, 30, 31, and 33 were rejected under § 112, ¶ 2, for being indefinite. In particular, the term "likely" was rejected as not being clearly defined.

As stated by the MPEP, definiteness of claim language is not to be analyzed in a vacuum, but in light of the content of the particular application disclosure, teachings of the prior art, and the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. MPEP § 2173.01 (8th ed., Rev. 2), at 2100-205.

It is respectfully submitted that the term "likely" has an ordinary meaning that is well understood by a person of ordinary skill in the art, and furthermore, the term "likely"

is well supported by the specification. In the some embodiments of the present application, switches of a telephony network are designed to predict whether a trunk selected in one switch is likely to conflict with a trunk selected by an opposing switch. Thus, in this context, the term "likely" refers to the predictive nature of the trunk selection algorithm used in a switch. This predictive algorithm, in some embodiments, cannot always predict with certainty a trunk that an opposing switch will select. Therefore, it is respectfully submitted that the term "likely" is appropriate in the context of the claimed invention, and the scope of the claims can be clearly ascertained by a person of ordinary skill in the art. Withdrawal of the § 112 rejection is respectfully requested.

REJECTIONS UNDER 35 U.S.C. §§ 102 AND 103

Claim 1 was rejected as being anticipated by Mo. Claim 1 recites a first switch system that includes a controller to determine if an indicated at least one available trunk is likely to be used by a second switch for call origination, and *in response to determining that* the at least one available trunk is likely to be used by the second switch, the controller is adapted to select another trunk for call origination.

Mo teaches that a group of trunks (indicated as being 7 in Figure 2 of Mo) can be divided into two subgroups 200 and 202 (Figure 2 of Mo). In switch module 11 of Figure 2 of Mo, the subgroup 200 is hunted (allocated) using a FIFO algorithm, while the subgroup 202 is hunted using a LIFO algorithm. Conversely, in the switch module 13 of Figure 2 of Mo, the subgroup 200 is hunted using a LIFO algorithm, while the subgroup 202 is hunted using a FIFO algorithm. Agreement is reached between the switch modules 11 and 13 regarding which one of the FIFO and LIFO algorithms have precedence. Mo, 3:65-67. In one example, the LIFO algorithm has precedence. In such an example, each switch module 11 or 13 selects a trunk by first hunting the LIFO subgroup (subgroup 202 for switch module 11 and subgroup 200 for switch module 13). Mo, 3:67-4:9. If a LIFO trunk is not available, then processing proceeds to the subgroup of lower precedence, in this case the FIFO subgroup, where a hunt for an available trunk is performed. Mo, 4:10-21. By dividing a group of trunks into two subgroups, the switch

modules 11 and 13 are thus able to search different subgroups (to avoid conflict) for selecting a trunk. However, this searching of different subgroups performed by switch modules 11 and 13 in Mo does not constitute a controller to determine if an indicated at least one available trunk *is likely to be used by a second switch for call origination*, and furthermore, *in response to determining that* the at least one available trunk is likely to be used by the second switch, the controller to *select another trunk for call origination.*

Neither switch module 11 nor switch module 13 *determines* if an available trunk is likely to be used by the opposing switch for call origination, and *in response to determining that* the at least one available trunk is likely to be used by the second switch, to select another trunk for call origination. Mo relies upon the arrangement of separate and independent subgroups of trunks to reduce the likelihood of conflicts--Mo does not make any specific determination of whether a trunk is likely to be used by an opposing switch, and to select another trunk *in response to determining that the available trunk is likely to be used by the second switch.* All that occurs in Mo is that each switch module (11 or 13) searches first through the LIFO group, and if no trunk is available in the LIFO group, to search through the FIFO group. Switch module 11 of Mo does *not* make a determination of whether a selected trunk is likely to be used by switch module 13, and to select another trunk for call origination in response to such determination. Conversely, switch module 13 of Mo does *not* make a determination of whether a selected trunk is likely to be used by switch module 11, and to select another trunk in response to such determination.

In view of the foregoing, it is respectfully submitted that claim 1 is not anticipated by Mo.

Dependent claims 2-13 are allowable for at least the same reasons as claim 1. Moreover, with respect to dependent claim 5, Mo does not teach a controller to *remove an identifier* of the one trunk from the shadow queue *and* the main queue (which has been equated with items 204 and 206 of Mo by the Office Action). The Office Action identified steps 310, 318 of Figure 3 of Mo as the removing task of claim 5. Step 310 occurs if it is determined that a trunk on the LIFO free list is available. However, claim 5 recites that the controller is adapted to select *one trunk* for a call origination, and that the

controller is adapted to remove an identifier of *the one trunk* from the shadow queue *and* the main queue. Step 310 of Mo removes *only* the head of the LIFO queue in response to a trunk on the LIFO free list being available—Mo does *not also* remove an entry from the FIFO queue. Similarly, step 318 of Mo removes *only* the head of the FIFO queue if a member of the FIFO trunk group is available—Mo does *not also* remove an entry from the LIFO queue. Claim 5 is thus allowable for this additional reason.

With respect to claim 6, which depends from claim 5, the Office Action cited Figure 4 of Mo as teaching that the controller is adapted to return an identifier of a released trunk to the shadow queue *and* the main queue. In Figure 4 of Mo, a deallocated LIFO trunk is attached to the head of the LIFO list (Mo, 4:48-51)—no teaching is made of returning an identifier of this deallocated LIFO to both a shadow queue *and* a main queue. Similarly, in Mo, a deallocated FIFO trunk is attached to the tail of the FIFO list (Mo, 4:54-58)—no teaching is made of returning an identifier of this deallocated FIFO trunk to both a shadow queue *and* a main queue. Claim 6 is thus allowable for at least this additional reason.

Claim 14 recites selecting a trunk (in a first switch system) in response to a call origination based on first and second queues that contain identifiers arranged in different arrangements, where selecting the trunk includes: selecting a first trunk from available trunks in the first queue, and using the second queue to *predict* if the first trunk selected from the first queue will conflict with a trunk to be selected by a second switch system. Such prediction is not performed at all by Mo, which relies upon dividing a group of trunks into subgroups such that opposing switches perform hunting of trunks in different subgroups. Note that claim 14 recites that the second queue is used to predict if the first trunk *selected from the first queue* will conflict with a trunk to be selected by the second switch system.

In the Office Action, the rejection of claim 14 referred to the rejections of claims 1 and 2. In the rejection of claim 2, items 204 and 206 in switch module 11 were identified as being the main queue and shadow queue, respectively, of claim 2 (first and second queues of claim 14). The switch module 11 of Mo does *not* use item 206 to predict if a trunk selected from item 204 will conflict with a trunk to be selected by

switch module 13. In fact, items 204 and 206 relate to completely different subgroups of trunks—therefore, item 206 would have absolutely no information relating to whether a trunk selected from item 204 would conflict with a trunk to be selected by switch module 13.

Therefore, claim 14 is not anticipated by Mo. Dependent claims 15-21 and 32 are allowable for at least the same reasons. Moreover, dependent claim 17 recites that the first switch system further removes an identifier of a selected trunk from first *and* second queues—as explained above with respect to claim 5, this does not occur in Mo. Dependent claim 18 is additionally allowable for reasons similar to those of claim 6, explained above.

Independent claim 22 is also not disclosed by Mo. Claim 22 recites maintaining a first list of available circuits in a first switch, *tracking* a second list of available circuits *in the second switch*, and selecting a circuit for call origination based on the first list and the *tracking of the second list*. In Mo, trunk selection for call origination is based on hunting through a first subgroup, followed by hunting through a second subgroup if no available trunk is found in the first subgroup. However, such selection of a trunk is not based on a first list of available circuits in a first switch and *tracking* of a second list of available circuits in *a second switch*. Therefore, claim 22 is not anticipated by Mo.

Dependent claims 23-28 are allowable for at least the same reasons. Moreover, with respect to claim 23, the rejection of claim 23 was grouped with the rejection of claims 2 and 15. No explanation was provided regarding how Mo teaches that tracking the second list is performed *without* communicating information regarding the second list from the second switch to the first switch. As explained by Mo, once switch module 11 seizes a trunk from a trunk group, a message including the group and member numbers of the seized trunk is sent to switch module 13, which marks the trunk as being in use. Mo, 2:64-3:2. Thus, in Mo, communication between the switch modules is necessary to determine which trunks are idle or busy. Therefore, Mo does not teach that tracking of the second list is performed *without* communicating information regarding the second list from the second switch to the first switch.

The rejection of dependent claim 24 was grouped with the rejection of claims 1, 4, and 12. No explanation was provided by the Office Action regarding how tracking the second list is performed locally in the first switch *without knowledge* of a content of the second list. In fact, as explained above with respect to claim 23, communication of a message occurs between the switch modules 11 and 13 of Mo to enable the switch modules to know which trunks are idle or busy.

Dependent claim 27 is allowable over Mo for reasons similar to those of claim 5. Dependent claim 28 is allowable over Mo for reasons similar to those of claim 6.

Independent claim 29 is allowable over Mo for similar reasons as claim 22.

With respect to independent claim 30, Mo does not disclose a trunk selection logic adapted to select an available trunk using a first queue and a shadow queue, where the trunk selection logic is adapted to access the shadow queue to determine if a selected trunk *from the first queue* is likely to be used by the second switch by call origination, and *in response to determining that* the available trunk is likely to be used by the second switch, the controller adapted to select another trunk for call origination. Therefore, claim 30 is not anticipated by Mo.

Claims 8 and 16 were rejected as being obvious over Mo and Simcoe. It is respectfully submitted that a *prima facie* case of obviousness has not been established with respect to these claims for at least the following reasons: (1) no motivation or suggestion existed to combine the teachings of Mo and Simcoe; and (2) even if combined, the hypothetical combination of Mo and Simcoe fails to teach or suggest *all* elements of the claimed subject matter. MPEP § 2143, at 2100-129.

As discussed above regarding Mo, the queues 204 and 206 of the switch module depicted in Figure 2 of Mo identify trunks of *different and separate* subgroups of trunks. There would be absolutely no reason whatsoever for the switch module 11 to compare the identifier of a trunk of queue 204 with an identifier of queue 206 to determine if the trunk selected from the first subgroup is likely to be selected by the second switch module 13. The two queues 204 and 206 of Mo are associated with completely separate subgroups of trunks—therefore, there would never be conflict between a trunk selected in the first subgroup with any trunk in the second subgroup. Therefore, no desirability existed at the

time of the present invention of modifying the trunk selection mechanism of Mo with any teaching of Simcoe. It is well established law that "[t]he mere fact that the prior art could be so modified would not have made the modification **obvious** unless the prior art suggested the **desirability** of the modification." *In re Gordon*, 733 F.2d 900, 902, 221 U.S.P.Q. 1125 (Fed. Cir. 1984) (emphasis added). Since no desirability existed to modify Mo to achieve the claimed invention, there existed no motivation or suggestion to combine the teachings of Mo and Simcoe.

A further defect of the obviousness rejection of claim 8 is that even if Mo and Simcoe can be combined, the hypothetical combination of the reference teachings does not teach or suggest the claimed invention. As conceded by the Office Action, Mo does not teach a controller to perform the comparing act of claim 8—the reason that Mo does not do this is that there is absolutely no reason to in light of the separate subgroups of trunks associated with queues 204 and 206 of Mo. The Office Action cited column 10, line 54-column 11, line 4 of Simcoe as teaching the comparison of the identifier in a first entry of a main queue with a corresponding entry in a shadow queue to determine if the selected one trunk is likely to be selected by a second switch. The cited passage of Simcoe refers to comparing the number stored in the current queue position register 72 against the next available queue position register 74 to determine if a difference exists, which would indicate that there is a request to service. This comparing is *not* between entries of a main queue and a shadow queue to determine if a selected trunk in one switch is likely to be selected by a second switch.

A *prima facie* case of obviousness is thus further defective for this additional reason. The obviousness rejection of claim 16 is similarly defective.

In view of the foregoing, allowance of all claims is respectfully requested. The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account No. 20-1504 (NRT.0096US).

Respectfully submitted,

Date: Jan 3, 2005

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